## **CLAIMS**

## What is claimed is:

- 1 1. A computer-implemented method comprising:
- defining a virtual interface to provide an interface for a Web service implementation;
- 3 creating a Web service definition to specify a behavior of the defined virtual
- 4 interface; and
- 5 providing a Web service archive including the virtual interface and the Web service
- 6 definition.
- 1 2. The method of claim 1, wherein defining the virtual interface comprises:
- 2 indicating an operation of the Web service implementation to be exposed by the
- 3 virtual interface.
- 1 3. The method of claim 2, wherein defining the virtual interface comprises:
- 2 providing a name for the operation to be exposed by the virtual interface.
- 1 4. The method of claim 2, wherein the operation includes a parameter to provide a value
- 2 for the operation and; wherein defining the virtual interface comprises:
- 3 altering a characteristic of the parameter.
- 1 5. The method of claim 4, wherein altering the characteristic of the parameter includes
- 2 at least one of:
- 3 providing a name for the parameter;
- 4 specifying a data type for the parameter; and
- 5 providing a default value for the parameter.

- 1 6. The method of claim 1, further comprising:
- defining a second virtual interface to provide a second interface for the Web service
- 3 implementation.
- 1 7. The method of claim 1, wherein creating the Web service definition to specify a
- 2 behavior of the defined virtual interface comprises:
- 3 providing a name for the Web service definition.
- 1 8. The method of claim 7, wherein creating the Web service definition to specify a
- 2 behavior of the defined virtual interface comprises:
- 3 specifying an authentication level for the Web service definition.
- 1 9. The method of claim 7, wherein creating the Web service definition to specify a
- 2 behavior of the defined virtual interface comprises:
- 3 specifying a transport guarantee type for the Web service definition.
- 1 10. The method of claim 7, wherein creating the Web service definition to specify a
- 2 behavior of the defined virtual interface comprises:
- indicating an authorization level for the Web service definition.
- 1 11. The method of claim 1, further comprising:
- 2 creating a Web service deployment descriptor to describe a configuration of the Web
- 3 service definition.
- 1 12. The method of claim 11, wherein providing the Web service archive comprises:
- 2 providing a Web service archive including the virtual interface, the Web service
- definition, and the Web service deployment descriptor.

- 1 13. The method of claim 11, wherein creating the Web service deployment descriptor to
- 2 describe a configuration of the Web service comprises:
- 3 specifying a name for the configuration of the Web service definition described, at
- 4 least in part, by the Web service deployment descriptor.
- 1 14. The method of claim 11, wherein creating the Web service deployment descriptor
- 2 comprises:
- 3 specifying a transport binding for the configuration of the Web service.
- 1 15. The method of claim 11, wherein creating the Web service deployment descriptor
- 2 comprises:
- 3 specifying an authentication protocol implementation for the configuration of the
- 4 Web service.
- 1 16. The method of claim 11, wherein creating the Web service deployment descriptor
- 2 comprises:
- 3 providing an address for the configuration of the Web service.
- 1 17. An application server comprising:
- a network interface to connect to a node; and
- a processor and logic executable thereon to
- 4 define a virtual interface to provide an interface of a Web service
- 5 implementation;
- 6 create a Web service definition to specify a behavior of the defined virtual
- 7 interface; and

- 8 provide a Web service archive including the virtual interface and the Web
- 9 service definition to the node with the network interface.
- 1 18. The application server of claim 17, wherein the processor and logic executable
- 2 thereon to define the virtual interface comprises:
- a processor and logic executable thereon to indicate an operation of the Web service
- 4 implementation to be exposed by the virtual interface.
- 1 19. The application server of claim 18, wherein the processor and logic executable
- 2 thereon to define the virtual interface comprises:
- a processor and logic executable thereon to provide a name for the operation to be
- 4 exposed by the virtual interface.
- 1 20. The application server of claim 17, wherein the processor and logic executable
- 2 thereon further comprises:
- a processor and logic executable thereon to define a second virtual interface to
- 4 provide a second interface for the Web service implementation.
- 1 21. The application server of claim 17, wherein the processor and logic executable
- 2 thereon to create the Web service definition comprises:
- 3 a processor and logic executable thereon to provide a name for the Web service
- 4 definition.
- 1 22. The application server of claim 21, wherein the processor and logic executable
- 2 thereon to create the Web service definition comprises:
- a processor and logic executable thereon to specify an authentication level for the
- 4 Web service definition.

- 1 23. The application server of claim 21, wherein the processor and logic executable
- 2 thereon to create the Web service definition comprises:
- a processor and logic executable thereon to specify a transport guarantee type for the
- 4 Web service definition.
- 1 24. The application server of claim 17, wherein the processor and logic executable
- 2 thereon further comprises:
- a processor and logic executable thereon to create a Web service deployment
- 4 descriptor to describe a configuration of the Web service definition.
- 1 25. The application server of claim 24, wherein the processor and logic executable
- 2 thereon to create the Web service deployment descriptor comprises:
- a processor and logic executable thereon to specify a name for the configuration of
- 4 the Web service definition.
- 1 26. The application server of claim 25, wherein the processor and logic executable
- 2 thereon to create the Web service deployment descriptor comprises:
- a processor and logic executable thereon to specify a transport binding for the
- 4 configuration of the Web service definition.
- 1 27. The application server of claim 25, wherein the processor and logic executable
- 2 thereon to create the Web service deployment descriptor comprises:
- a processor and logic executable thereon to specify an authentication protocol
- 4 implementation for the configuration of the Web service definition.
- 1 28. A system comprising:

- 2 a means for defining a virtual interface to provide an interface for a Web service 3 implementation; 4 a means for creating a Web service definition to specify a behavior of the defined 5 virtual interface; and 6 a means for providing a Web service archive including the virtual interface and the 7 Web service definition. 1 29. The system of claim 28, wherein the means for defining a virtual interface comprises: 2 a means for indicating an operation of the Web service implementation to be exposed 3 by the virtual interface. 30. The system of claim 28, wherein the means for creating a Web service definition 1 2 comprises: 3 a means for specifying an authentication level for the Web service definition. 1 31. The system of claim 28, further comprising: 2 a means for creating a Web service deployment descriptor to describe a configuration 3 of the Web service definition. 1 32. The system of claim 31, wherein the means for creating the Web service deployment
- descriptor to describe the configuration of the Web service definition comprises:
   a means for specifying a transport binding for the configuration of the Web service.
- 1 33. An article of manufacture comprising:
- an electronically accessible medium providing instructions that, when executed by an
- 3 apparatus, cause the apparatus to
- define a virtual interface to provide an interface for a Web service implementation;

  006570.P061

  -65- Express Mail No. EV325528940US

- 5 create a Web service definition to specify a behavior of the defined virtual interface;
- 6 and
- 7 provide a Web service archive including the virtual interface and the Web service
- 8 definition.
- 1 34. The article of manufacture of claim 33, wherein the instructions that, when executed
- 2 by the apparatus, cause the apparatus to define the virtual interface include instructions that
- 3 the cause the apparatus to
- 4 indicate an operation of the Web service implementation to be exposed by the virtual
- 5 interface.
- 1 35. The article of manufacture of claim 33, wherein the instructions that, when executed
- 2 by the apparatus, cause the apparatus to create the Web service definition include instructions
- 3 that the cause the apparatus to
- 4 specify an authentication level of the Web service definition.
- 1 36. The article of manufacture of claim 33, wherein the electronically accessible medium
- 2 providing instructions that, when executed by an apparatus, further cause the apparatus to
- 3 create a Web service deployment descriptor to describe a configuration of the Web
- 4 service definition.
- 1 37. The article of manufacture of claim 37, wherein the instructions that, when executed
- 2 by the apparatus, cause the apparatus to create the Web service deployment descriptor
- 3 include instructions that the cause the apparatus to
- 4 specify a transport binding for the Web service definition.